

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
13 October 2005 (13.10.2005)

PCT

(10) International Publication Number  
**WO 2005/095780 A1**

(51) International Patent Classification<sup>7</sup>: **F02M 25/07**

(21) International Application Number:  
PCT/SE2005/000460

(22) International Filing Date: 31 March 2005 (31.03.2005)

(25) Filing Language: Swedish

(26) Publication Language: English

(30) Priority Data:  
0400857-9 31 March 2004 (31.03.2004) SE

(71) Applicant (for all designated States except US): **SCANIA  
CV AB (PUBL)** [SE/SE]; S-151 87 Södertälje (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PELZ, Magnus**  
[SE/SE]; Höstvägen 5, S-146 54 Tullinge (SE). **SKOG,  
Henrik** [SE/SE]; Ståhlhamravägen 3 B, S-151 47 Södertälje  
(SE). **SARBY, Håkan** [SE/SE]; Kynäsvägen 3 B, S-141  
42 Huddinge (SE).

(74) Agent: **FORSELL, Hans**; Scania CV AB, Patents, S-151  
87 Södertälje (SE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

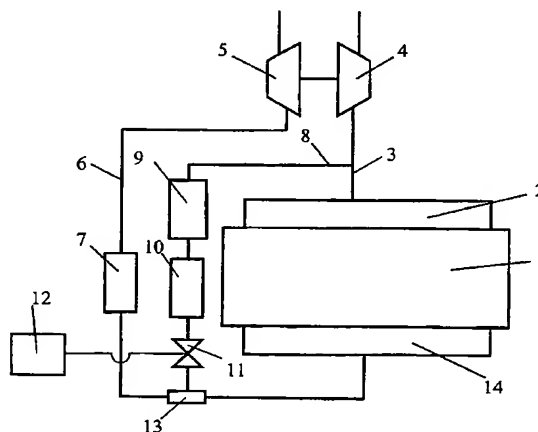
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ARRANGEMENT FOR RECIRCULATION OF EXHAUST GASES OF A SUPER-CHARGED INTERNAL COMBUSTION ENGINE



(57) Abstract: The present invention relates to an arrangement for recirculation of exhaust gases in a supercharged combustion engine (1). The arrangement comprises an exhaust line (3) intended to lead exhaust gases out from the combustion engine (1), an inlet line (6) intended to lead air at above atmospheric pressure to the combustion engine (1), a return line (8) which comprises a connection to the exhaust line (3) and a connection to the inlet line (6), so that via the return line (8) it is possible to recirculate exhaust gases from the exhaust line (3) to the inlet line (6). The arrangement comprises a first cooler (10) incorporated in the return line (8) for cooling the exhaust gases in the return line (8) before they are mixed with the air in the inlet line (6). The exhaust gases in the first cooler (10) are cooled by a first medium which is at a temperature substantially corresponding to the temperature of the surroundings.